Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1-57. Cancelled

58. (Currently Amended) An isolated nucleic acid comprising a polynucleotide encoding a soluble fragment of the polypeptide of SEQ ID NO:2, or a variant thereof, wherein said soluble fragment ~~polypeptide~~ is capable of decreasing inhibition of axonal growth of a central nervous system neuron.

59. (Currently Amended) The isolated nucleic acid of claim 58, comprising a polynucleotide encoding a soluble fragment ~~polypeptide~~ selected from the group consisting of:

(a) a polypeptide comprising amino acids 34-532 of SEQ ID NO:2;

~~(b) a polypeptide comprising amino acids 34-417 of SEQ ID NO:2;~~

~~(c) a polypeptide comprising amino acids 34-432 of SEQ ID NO:2;~~

(b)~~(d)~~ a polypeptide comprising amino acids 417-531 of SEQ ID NO:2;

(c)~~(e)~~ a polypeptide comprising amino acids 425-531 of SEQ ID NO:2;

(d)~~(f)~~ a polypeptide comprising amino acids 1-531 of SEQ ID NO:2;

(e)~~(g)~~ a polypeptide comprising amino acids 433-493 of SEQ ID NO:2;

(f) ~~(h)~~ a polypeptide comprising an Sp35 LRR domain, an Sp35 basic region C-terminal to the LRR domain, and an Sp 35 immunoglobulin (Ig) domain C-terminal to the basic region, but lacks a transmembrane domain;

(g) ~~(i)~~ a polypeptide comprising an Sp35 Ig domain, but lacking an Sp35 LRR domain, an Sp35 basic region, a transmembrane domain, and a cytoplasmic domain;

~~(j) a polypeptide comprising an Sp35 LRR domain, but lacking an Sp35 Ig domain, an Sp35 basic region, a transmembrane domain, and a cytoplasmic domain;~~

~~(k) a polypeptide comprising an Sp35 LRR domain, basic region, Ig domain, connecting sequence, and transmembrane domain; but lacking a functional cytoplasmic domain;~~

(h) ~~(l)~~ a polypeptide as in (f) ~~(h)~~, further lacking a cytoplasmic domain;

~~(m) a polypeptide comprising amino acids 417 to 424 of SEQ ID NO:2;~~

~~(n) a polypeptide comprising amino acids 494 to 551 of SEQ ID NO:2;~~

(i) ~~(o)~~ a polypeptide comprising amino acids 1-576 of SEQ ID NO:2;

(j) ~~(p)~~ a polypeptide comprising amino acids 454-458 of SEQ ID NO:2; and

(k) ~~(q)~~ a polypeptide comprising amino acids 453-458 of SEQ ID NO:2;

~~(r) a polypeptide comprising the amino acids of SEQ ID NO:11 (ITPKRR);~~

~~(s) a polypeptide comprising the amino acids of SEQ ID NO:12 (ACPHHK); and~~

~~(t) a polypeptide comprising the amino acids of SEQ ID NO:13 (VSPRKH);~~

wherein said soluble fragment ~~polypeptide~~ is capable of decreasing inhibition of axonal growth of a central nervous system neuron.

60. (Currently Amended) The nucleic acid of claim 58, further comprising a polynucleotide encoding a heterologous polypeptide fused to said soluble fragment ~~polypeptide~~.

61. (Currently Amended) The nucleic acid of claim 60, wherein said heterologous polypeptide is selected from the group consisting of an Ig polypeptide, a serum albumin polypeptide, a targeting polypeptide, a reporter polypeptide, a human NgR1-binding polypeptide, one or more cysteine residues, and a purification-facilitating polypeptide.

62. (Previously Presented) The nucleic acid of claim 61, wherein said heterologous polypeptide is selected from the group consisting of immunoglobulin Fc, human serum albumin or fragment thereof, a histidine tag, an oligodendrocyte-myelin glycoprotein or fragment thereof, a myelin associated glycoprotein or fragment thereof, and a Nogo 66 glycoprotein or fragment thereof.

63. (Currently Amended) The nucleic acid of claim 61, wherein said soluble fragment ~~polypeptide~~ is cyclized.

64. (Previously Presented) A composition comprising a pharmaceutically acceptable carrier and the nucleic acid of claim 58.

65. (Previously Presented) A vector comprising the nucleic acid of claim 58.

66. (Previously Presented) The vector of claim 65, wherein said nucleic acid is operatively linked to an expression control sequence.

67. (Previously Presented) The vector of claim 66, wherein said vector is a viral vector.

68. (Previously Presented) The vector of claim 67, wherein said viral vector is selected from the group consisting of an adenoviral vector, a lentiviral vector, a baculoviral vector, an Epstein Barr viral vector, a papovaviral vector, a vaccinia viral vector, and a herpes simplex viral vector.

69. (Previously Presented) A host cell comprising the vector of claim 66.

70. (Currently Amended) The host cell of claim 69, which expresses said soluble fragment ~~polypeptide~~.

71. (Previously Presented) An isolated polypeptide encoded by the nucleic acid of claim 58.

72. (Previously Presented) The polypeptide of claim 71, wherein said polypeptide is produced synthetically.

73. (Previously Presented) The polypeptide of claim 71, wherein said polypeptide is cyclized.

74. (Previously Presented) The polypeptide of claim 71, wherein said polypeptide is conjugated to a polymer.

75. (Previously Presented) The polypeptide of claim 74, wherein said polymer is selected from the group consisting of a polyalkylene glycol, a sugar polymer, and a polypeptide.

76. (Previously Presented) The polypeptide of claim 75, wherein said polyalkylene glycol is polyethylene glycol (PEG).

77. (Previously Presented) The polypeptide of claim 74, wherein said polypeptide is conjugated to 1, 2, 3 or 4 polymers.

78. (Previously Presented) The polypeptide of claim 77, wherein the total molecular weight of the polymers is from 20,000 Da to 40,000 Da.

79. Cancelled.

80. (Currently Amended) A composition comprising a pharmaceutically acceptable carrier and ~~an active ingredient selected from the group consisting of~~ the polypeptide of claim 71~~, an antibody or antibody fragment thereof which specifically binds to said polypeptide of claim 71, and a combination of said polypeptide, antibody or antibody fragment thereof~~ wherein said polypeptide~~, antibody or antibody fragment~~ decreases inhibition of axonal growth of a central nervous system (CNS) neuron.

81. (Previously Presented) The composition of claim 80, further comprising a supplementary active compound selected from the group consisting of an anti-NgR1 antibody or binding fragment thereof and a soluble NgR1 polypeptide.

82-99. Cancelled.

100. (Previously Presented) A method for producing an Sp35 polypeptide comprising culturing the host cell of claim 70 and recovering said Sp35 polypeptide from the culture medium.